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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,170

11/13/2006

Frank B. Stamps

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5513

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12/15/2009

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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3657

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/568,170	Applicant(s) STAMPS ET AL.	
	Examiner Melody M. Burch	Art Unit 3657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 2774553 to Jensen in view of 5535861 to Young.

Re: claims 1, 3, 4, 6, 7, 11, 13, 14, and 16. Jensen shows in figure 5 a damper having an adjustable spring rate comprising a piston 108 having an axis, an outer surface and opposing ends, at least one seal shown surrounding the piston in sealing contact with the outer surface of the piston, the at least one seal being coaxial with the piston and limiting movement of the piston to a path along the axis of the piston, the at least one seal also defining fluid chambers 110, 112 adjacent the ends of the piston, a primary passage 152,164 communicating the fluid chambers, and a selectively switchable valve for controlling a flow of fluid from one of the chambers to another for the chambers through the primary passage, and wherein when the flow of fluid through the primary passage is permitted by the energization of element 156 to open primary passage 152,164 to the same extent that passage 87 is opened in the instant invention, movement of the piston is resisted by a first spring rate due to a shear force required to cause shear deflection of the at least one seal, and when the flow of fluid through the

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primary passage is restricted by de-energization of element 156 to close the primary passage 152, 158, movement of the piston is resisted by a second spring rate due to a fluid force required to cause bulging deflection of the at least one seal to the same extent as Applicant's invention (paragraph [0027] of the instant invention describes bulging from fluid being restricted to flowing through secondary passage 89 instead of through primary passage 87. In the case of Jensen fluid is restricted to flowing through a secondary passage 146 instead of through 152, 164 when the primary passage is closed).

Jensen is silent with regards to the at least one seal specifically being elastomeric or being a plurality of seals.

Young teaches in figure 1 the use of a damping having an adjustable spring rate comprising elastomeric seals 22.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the at least one seal of Jensen to have included elastomeric seals, as taught by Young, in order to provide adequate balance of resilience and strength and a desired level of damping depending on application.

Re: claims 2 and 12. Jensen, as modified, teaches in Young the use of elastomeric seals being formed of layers of an elastomeric material 23 and a rigid non elastomeric material 26.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the elastomeric seals of Jensen, as modified, to have included layers of an elastomeric material and a rigid non elastomeric material, as

taught by Young, in order to provide a means of having seals with adequate stiffness for improved product reliability.

Re: claims 5 and 15. In an alternate interpretation of Jensen, as modified, the primary passage communicating the fluid chambers may be the passage surrounding element 150. A selectively switchable valve 150 (selectively switchable in the sense that it is switchable to an open position only at a certain pressure threshold, as broadly recited) for controlling flow of a fluid from one of the chambers to another of the chambers through the primary passage. The primary passage surrounding element 150 is located within the piston as shown.

Re: claims 8, 9, 17, and 18. Jensen, as modified, teaches in figure 5 of Jensen the use of a bypass passage shown surrounding element 148 for limiting pressure imbalances.

Re: claims 10 and 19. Jensen, as modified, teaches in figure 5 of Jensen a bypass valve 148 being located within the bypass passage.

Response to Arguments

3. Applicant's arguments filed 8/21/09 have been fully considered but they are not persuasive.

Applicant argues that Jensen does not disclose a shear force required to cause shear deflection of the seals. Proper patent application examination requires that the claim recitations be read in light of the specification. Examiner turned to the instant specification for a better understanding of how the shear deflection of the seals is caused by the shear force. Applicant describes in paragraph [0026] of the published

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application of the instant invention that "[w]hen movement of post 53 causes piston 65 to move relative to housing 75 and toward chamber 85, as is shown in the figure, the movement is resisted by the shear force required to deflect seals 69, 71." Examiner maintains that similar to the instant application when movement of post 114 causes piston 108 to move relative to housing 106 and toward chamber 110, as shown in the figure, the movement is resisted by the shear force required to deflect the seals, as modified, shown between the piston and the housing. *Examiner acknowledges that the difference between the seals of Jenson and those of the instant invention is that the seals of the instant invention are fixed to the housing. Examiner notes, however, that this distinction is not recited in the claims.* Although the seals of Jenson, as modified, are not fixed to the housing in the same way that they are in the instant application, they experience some degree of shear force from the relative movement of the piston relative to the housing due to the frictional contact between the seals and the housing.

Applicant also argues that Jenson does not disclose a second spring rate due to a fluid force required to cause bulging deflection of the seals. Again Examiner turned to the instant specification for a better understanding how of the bulging deflection of the seals is caused. Applicant describes in paragraph [0027] of the published application of the instant invention that the rotary valve 97 in passage 87 is in the closed position and that "[b]ecause fluid in chamber 85 is restricted to flowing through only secondary passage 89, the fluid pressure caused by the piston 65 on the fluid in chamber 85 causes the central portion of seal 71 to bulge outward." Examiner maintains that similar to the instant application the valve 158 in passage 152 is in the closed position and

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because fluid in chamber 110 is restricted to flowing through only secondary passage 146, the fluid pressure caused by the piston 108 on the fluid in chamber 110 causes the central portion of the seal shown between the piston and the housing to bulge outward to a certain extent.

Accordingly, the rejections have been maintained.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5374039 to Schmidt et al. teaches the use of a damper having at least one seal 24 fixed to a piston and a housing wherein the piston includes fluid communication passages and pressure relief valves separating two chambers.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

mmb
December 11, 2009

/Melody M. Burch/
Primary Examiner, Art Unit 3657